

AMENDMENTS TO THE CLAIMS

The listing of claims below replaces all prior versions of claims in the application.

1. (Original) An electronic volume device remotely controlled by a remote controller, the electronic volume device comprising:

means for receiving an i-th common volume level $Dcom[i]$ ($i = 1$ to N) on a common scale of N steps;

means for converting received $Dcom[i]$ into a j-th unique volume level $Dvol[j]$ on a unique scale of M steps ($M < N$); and

means for controlling an attenuation factor based on the $Dvol[j]$, wherein the converting means includes:

means for storing an offset value $Doffset$ between the $Dcom[i]$ and the $Dvol[j]$; and

means for adjusting at least one of the $Dvol[j]$ and the $Doffset$ such that the received $Dcom[i]$ agrees with a sum of the $Dvol[j]$ and the $Doffset$, wherein the adjusting means adjusts the $Dvol[j]$ on a higher priority than the $Doffset$.

2. (Original) The electronic volume device as claimed in claim 1, further comprising means for previously transmitting a sum of the unique volume level $Dvol[j]$ and the offset value $Doffset$ to the remote controller.

3. (Original) The electronic volume device as claimed in claim 1, wherein when the common volume level $Dcom[i]$ transmitted from the remote controller is a predetermined mute level, a present offset value $Doffset$ is saved and the common volume level $Dcom[j]$ is decreased to a predetermined level.

4. (Currently Amended) The electronic volume device as claimed in claim 3, wherein when the common volume level $Dcom[i]$ is transmitted in a mute state, the saved offset value $Doffset$ is recovered and the unique volume level $Dvol[j]$ is set at a ~~sum of the transmitted $Dcom[i]$ and the $Doffset$~~ value obtained by subtracting the $Doffset$ from the transmitted $Dcom[j]$.

5. (Original) The electronic volume device as claimed in any one of claims 1 to 4, wherein the electronic volume device conducts radio communications with the remote controller according to a communication procedure complying with a Blue tooth standard.

6. (Withdrawn) An electronic volume device remotely controlled by a remote controller, the electronic volume device comprising:

means for managing a correspondence relationship between an i -th common volume level $Dcom[i]$ on a common scale of N steps and a j -th unique volume level $Dvol1[j]$ on a unique scale of M steps;

means for receiving $Dcom$ from the remote controller;

means for storing the $Dcom$;

an electronic volume whose attenuation factor is controlled based on the stored $Dcom$;

a volume switch for directing $Dvol1$ on the unique scale;

means for converting the directed $Dvol1$ into $Dcom$ based on the correspondence relationship; and

means for updating the converted $Dcom$ in the storing means.

7. (Withdrawn) The electronic volume device as claimed in claim 6, further comprising means for transmitting the converted common volume level $Dcom$ to the remote controller.

8. (Withdrawn) The electronic volume device as claimed in claim 6, wherein the volume switch includes a first switch for increasing the unique volume level Dvol1 and a second switch for decreasing the unique volume level Dvol1, and wherein the converting means includes:

means for selecting Dvol1 whose corresponding common volume level Dcom is nearest to the present Dcom on an increasing side from among M Dvol1s in response to an operation of the first switch;

means for selecting Dvol1 whose corresponding common volume level Dcom is nearest to the present Dcom on a decreasing side from among M Dvol1s in response to an operation of the second switch; and

means for converting the selected Dvol1 into Dcom.

9. (Withdrawn) A remote controller for remotely controlling an electronic volume device, the remote controller comprising:

means for managing a correspondence relationship between an i-th common volume level Dcom[i] on a common scale of N steps and a k-th unique volume level Dvol2[k] on a unique scale of L steps;

means for storing a present Dcom;

a volume switch for directing Dvol2 on the unique scale;

means for converting the directed Dvol2 into Dcom based on the correspondence relationship;

means for updating and registering the converted Dcom in the storing means; and

means for transmitting the converted Dcom to the electronic volume device.

10. (Withdrawn) The remote controller of an electronic volume device as claimed in claim 9, further comprising means for receiving the common volume level Dcom from the electronic volume device and means for updating and registering the received Dcom in the storing means.

11. (Withdrawn) The remote controller of an electronic volume device as claimed in claim 9, wherein the volume switch includes a first switch for increasing volume and a second switch for decreasing volume, and wherein the converting means includes:

means for selecting Dvol2 whose corresponding common volume level Dcom is nearest to the present Dcom on an increasing side from among L unique volume level Dvol2s in response to an operation of the first switch;

means for selecting Dvol2 whose corresponding common volume level Dcom is nearest to the present Dcom on a decreasing side from among L Dvol2s in response to an operation of the second switch; and

means for converting the selected Dvol2 into Dcom.